

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended) A method for processing rules comprising:
accepting a rules base comprising a plurality of rules, each rule including a condition that includes one or more condition element for application of the rule, at least some of the conditions including multiple condition elements; and
processing the rules base to form a data structure in a computing system, wherein each rule being associated with a corresponding portion of the data structure, each corresponding portion representing the condition for the rule and including includes for each of the plurality of rules storage locations for holding Boolean values of the condition elements of the conditions for said rule.
2. (original) The method of claim 1 wherein the storage locations for holding values of the condition elements comprise bits of a bit vector with each condition element being associated with a different bit position in the bit vector.
3. (original) The method of claim 1 further comprising:
processing a plurality of facts, including evaluating condition elements that depend on the facts, and storing results of evaluating the condition elements in the storage locations for holding the values of the condition elements.
4. (original) The method of claim 1 wherein the data structure links each fact to corresponding condition elements that depend on that fact.
5. (original) The method of claim 4 further comprising processing a plurality of facts, including determining applicable rules of the plurality of rules based on the accepted facts by identifying condition elements that depend on the accepted facts using the data structure.

6. (original) The method of claim 1 wherein the data structure includes for each of the plurality of rules data values corresponding to the storage locations for the values of the condition elements, said data values representing a logical combination of condition elements.

7. (original) The method of claim 6 further comprising:

identifying applicable ones of the plurality of rules using the data values representing the logical combination of the condition elements and values stored in the storage locations for storing values of the condition elements.

8. (currently amended) A system for processing a rules base comprising:

a data structure formed using a rules base that includes a plurality of rules, each rule including a condition that includes one or more condition element for application of the rule, at least some of the conditions including multiple condition elements, each rule of the rules base being associated with a corresponding portion of the data structure, each corresponding portion representing the condition for the rule and including storage locations for holding values of the condition elements of the condition for said rule; and

a compiler for processing the rules base, the rules base comprising a plurality of rules, each rule including a condition that includes one or more condition element for application of the rule, at least some of the conditions including multiple condition elements.

9. (currently amended) A rules processing system comprising:

a data structure formed using a rules base that includes a plurality of rules, each rule including a condition that includes one or more condition element for application of the rule, at least some of the conditions including multiple condition elements, each rule being associated with a corresponding portion of the data structure, each corresponding portion representing the condition for the rule and including storage locations for holding values of condition elements of the condition for said rule; and

a rules processing engine coupled to the data structure for operation according to the rules base.

10. (currently amended) A data structure embodied in a computer-readable medium for use in rules processing comprising:

storage locations for values associated with conditions for a plurality of rules in a rules base, wherein the rules base comprises a plurality of rules, each rule including a condition that includes one or more condition element for application of the rule, at least some of the conditions including multiple condition elements;

wherein each rule is associated with a corresponding structure of the data structure, each corresponding portion representing the condition for the rule and including storage locations for holding values of the condition elements of the condition for said rule.

11. (currently amended) Software comprising instructions embodied in a computer-readable medium for causing a computer system to:

accept a rules base comprising a plurality of rules, each rule including a condition that includes one or more condition element for application of the rule, at least some of the conditions including multiple condition elements; and

process the rules base to form a data structure, each rule being associated with a corresponding portion of the data structure, the corresponding portion representing the condition for the rule and including storage locations for holding values of the condition elements of the condition for said rule.